Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Weekend of PRACTICE!**

Hand in this packet 100% completed to Ms. Eggleston on MONDAY, April 9, 2018.

Match each compound to its molar mass. This skill needs to become automatic!!!!!!

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| --- | --- |
| Compound | Molar Mass (in grams per mole) |
| 1. \_\_\_\_\_\_\_\_\_KOH | 1. 56.1 |
| 1. \_\_\_\_\_\_\_\_\_BeCl2 | 1. 121 |
| 1. \_\_\_\_\_\_\_\_\_FeCl3 | 1. 58.3 |
| 1. \_\_\_\_\_\_\_\_\_Cl2 | 1. 162.3 |
| 1. \_\_\_\_\_\_\_\_\_BF3 | 1. 98 |
| 1. \_\_\_\_\_\_\_\_\_CCl2F2 | 1. 64.1 |
| 1. \_\_\_\_\_\_\_\_\_Mg(OH)2 | 1. 60 |
| 1. \_\_\_\_\_\_\_\_\_UF6 (U = 238g/mol) | 1. 71 |
| 1. \_\_\_\_\_\_\_\_\_SO2 | 1. 331.2 |
| 1. \_\_\_\_\_\_\_\_\_H3PO4 | 1. 352 |
| 1. \_\_\_\_\_\_\_\_\_ (NH4)2SO4 | 1. 80 |
| 1. \_\_\_\_\_\_\_\_\_CH3COOH | 1. 379.9 |
| 1. \_\_\_\_\_\_\_\_\_Pb(NO3)2 | 1. 67.8 |
| 1. \_\_\_\_\_\_\_\_\_Ga2(SO3)3 | 1. 132.1 |

**Mole Conversion Guide: Practice**

|  |  |
| --- | --- |
| **Moles to Mass** | 1. Convert 5 moles of hydrogen into grams. 2. Convert 3 moles of oxygen into grams. |
| **Mass to Moles** | 1. Convert 61.94 grams of phosphorus into moles. 2. Convert 95 grams of fluorine into moles. |
| **Moles to Atoms** | 1. Convert 7 moles of calcium into atoms. 2. Convert 4 moles of Hafnium into atoms. |
| **Atoms to Moles** | 1. Convert 6.02x1025 atoms of iron into moles. 2. Convert 1.19 x 1013 atoms of lithium into moles. |
| **Moles to Molecules** | 1. Convert 4 moles of H2O into molecules. 2. Convert 6 moles of CO2 into molecules. |

1. How many moles of magnesium is 3.01 x 1022 atoms of magnesium?
2. How many molecules are there in 4.00 moles of glucose, C6H12O6?
3. How many moles are 1.20 x 1025 atoms of phosphorous?
4. What is the mass of 5 moles of curious chloride (CmCl3)? (Cm=247.07g/mol)
5. Find the mass in 2.6 mol of C8H12 (which is called windowpane).
6. Find the mass in grams of 2.00 x 1023 molecules of C10H15O (called penguinone because its structure looks like a penguin). This problem requires 2 different conversions! Molecules 🡪 moles 🡪 grams
7. Determine the mass, in grams, of 2.6 moles of angelic acid, C5H8O2.
8. Find the mass, in grams, of 1.00 x 1023 molecules of N2. This problem requires 2 different conversions! Molecules 🡪 moles 🡪 grams